

Diary

Objective

The focus of this projectlet is calendar management and exploration of serialization techniques. An utility is specified to support an individual contributor to a project to start with goals, track the achievements and challenges in order to provide a clear overall picture to peers and/or management.

The facility is specified as a “personal” tool - dedicated to a single user.

Date and Time manipulation libraries are fully exercised in this utility. It is expected that the user utilizes the tool during normal working hours.

For serialization JSON, xml and databases are suitable and chosen on the basis of available libraries.

User needs and requirements

This projectlet is to fulfill the need of individual contributors presumably service as team members.

Id	Need/Requirement
1	The utility supports sprints of different durations e.g. 1, 2 or 3 weeks.
2	Sprints begin on Sundays and last through Saturdays.
3	TODO items with a description and estimated effort can be specified
4	An item can be completed or blocked.
5	The tool should support generating a report of tasks along with statuses

Specifications

The following will enhance the appeal of the tool.

Sub Command	Description	Options
create	Creates a diary file.	Argument is a filename. Default ~/.diary/diary.dia
		If the default filename is not used, all the subsequent commands will require the filename to be specified using the <code>—filename</code> switch.
		<code>—duration 1w 2w 3w 4w (<n>w)</code> Specifies the duration of the sprint. Default is 1 week. Sprints are numbered serially.
		A new sprint is created with a timespan that includes the current date. All task related commands below will apply to this default sprint.
modify	Modify the attributes of the diary.	<code>—duration 1w 2w 3w 4w (<n>w)</code> Modifies the duration of the sprints. Will apply to new sprints created from this point on.
todo	Adds an entry to the current sprint as a todo item. Current sprint is defined to start on the previous Sunday and lasts for the duration specified during creation	<code>—effort <n></code> Where n is an estimate of effort. The tool is agnostic to units. If not specified it is assumed to be 0
		<code>—task <str></code> Task id. This is optional. If not specified an id is automatically assigned.
done	Marks a task as done	<code>—task <str></code> Searches for a todo task with this id. The id could be a number or a specified id
		Argument is a description phrase. If id is not provided the argument could be used to just add an item which is completed. In this case the flag effort can be included to record the fact. <code>—effort <n></code>
blocked	Indicates a task as being unable to complete because of a blocker. The argument is a description of the blocker.	<code>—task <str></code> Selects the id which is blocked.

Sub Command	Description	Options
		Argument is a description phrase and describes the blocker.
report	Generates a report of a sprint - including summaries of effort levels	—all reports all the sprints indicated in the diary. By default only the “currently active” sprint is reported.

Example usage

HELP

```
dotnet bin/Debug/netcoreapp2.2/diary.dll  
Diary Utility. Version 00.01
```

Diary level commands

```
create    create a new diary  
modify    parameters of a diary e.g. sprint duration  
report    report the diary
```

Sprint level commands

```
todo      add a new task to the current sprint. argument:  
<description of task>  
done      mark a task done  
blocked   mark a task blocked. argument: <blockage reason>  
-h  --help      show help  
-v  --verbose   verbose  
-f  --filename  Diary filename. Default: ~/.diary/diary.dia  
-d  --duration  Sprint duration. Default: 1  
-e  --estimate  Estimated effort for task creation. Default  
1. Units = arbitrary  
-t  --task      Id of the task for close/done/blocked  
-a  --all       Report all sprints. Default: only the current sprint
```

CREATE A NEW NAMED DIARY

```
dotnet bin/Debug/netcoreapp2.2/diary.dll create -f ~/.diary/  
sample.dia  
Create diary  
Beginning 6/23/19 12:00:00 AM Weeks 1 End 6/29/19 11:59:59 PM  
Creating empty diary /Users/rajasrinivasan/.diary/sample.dia  
duration 1
```

CREATE A TASK IN THE CURRENT SPRINT

```
dotnet bin/Debug/netcoreapp2.2/diary.dll todo -f ~/.diary/  
sample.dia my first task  
Add a task to current sprint  
Adding  
ID=S0:T0  
{"description":"my first  
task","blockage":null,"id":"S0:T0","status":0,"effort_estimate":  
0,"project":null}
```

MARK A TASK DONE

```
dotnet bin/Debug/netcoreapp2.2/diary.dll done -f ~/.diary/
sample.dia -t S0:T2
Mark a task Done
Marking task S0:T2 done
```

INDICATE BLOCKED TASK

```
dotnet bin/Debug/netcoreapp2.2/diary.dll blocked -f ~/.diary/
sample.dia -t S0:T1 not enough resources
Mark a task blocked
Marking task S0:T1 blocked
```

GENERATE A REPORT

```
dotnet bin/Debug/netcoreapp2.2/diary.dll report -f ~/.diary/
sample.dia
Report generation
-----
Created : 6/28/19 1:12:51 AM
Sprint Duration : 1
-----
Current Sprint:
Sprint ID : S0 Status: OPEN -----
State: Active
Starting 6/23/19 12:00:00 AM Ending: 6/29/19 11:59:59 PM
Tasks 3 Total Effort: 0
Todo: S0:T0 Project: Effort: 0 Description: my first task
Status: ToStart
Blockage:
```

```
Todo: S0:T1 Project: Effort: 0 Description: my second task
Status: Blocked
Blockage: not enough resources
```

```
Todo: S0:T2 Project: Effort: 0 Description: my third task
Status: Done
Blockage:
```

MODIFY SPRINT DURATION AND CREATE NEW SPRINT

```
dotnet bin/Debug/netcoreapp2.2/diary.dll modify -f ~/.diary/
sample.dia -d 3
Modify diary
```

```
Rajas-MBP:diary rajasrinivasan$ dotnet bin/Debug/netcoreapp2.2/
diary.dll close -f ~/.diary/sample.dia
Close current sprint
Warning: Sprint expiry date is away. Closing
Beginning 6/23/19 12:00:00 AM Weeks 3 End 7/13/19 11:59:59 PM
```

